

THE OFFICE OF REGULATORY STAFF

TESTIMONY

OF

A. RANDY WATTS



Docket No. 2006-1-E

Carolina Power & Light Company d/b/a Progress
Energy Carolinas, Inc. Annual Review of Base
Rates for Fuel Costs

**TESTIMONY OF
A. RANDY WATTS
ON BEHALF OF
THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF
DOCKET NO. 2006-1-E**

**Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND
OCCUPATION.**

A. My name is Randy Watts. My business address is 1441 Main Street, Suite 300, Columbia, South Carolina 29201. I am employed by the State of South Carolina as Program Manager of the Electric Department for the Office of Regulatory Staff ("ORS").

**Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND
EXPERIENCE.**

A. I received a Bachelor of Science Degree in Electrical Engineering from the University of South Carolina in Columbia in 1976. I was employed at that time by the Public Service Commission of South Carolina ("Commission") as a Utilities Engineer in the Electric Department and was promoted to Chief of the Electric Department in August 1981. Subsequent to internal Commission restructuring, my position was designated Chief of Electric in October 1999. I remained in that role until transferring to my current position with ORS in January 2005. I have testified on numerous occasions before the Commission in conjunction with fuel clause, territorial assignment, Siting Act, complaint and general rate proceedings.

1 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
2 **PROCEEDING?**

3 **A.** The purpose of my testimony is to set forth the Office of Regulatory
4 Staff findings and recommendations resulting from our examination of
5 Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.
6 ("PEC" or "Company") fuel expenses and power plant operations used in the
7 generation of electricity for the period under review. My testimony also
8 encompasses support for the Settlement Agreement reached by all Parties in
9 this proceeding.

10 **Q. WHAT AREAS WERE ENCOMPASSED IN YOUR REVIEW OF THE**
11 **COMPANY'S FUEL EXPENSES AND PLANT OPERATIONS?**

12 **A.** ORS reviewed the Company's responses to our Data Requests (Set
13 Nos. 1 and 2) containing forty-seven multi-part questions. In preparation for
14 this proceeding, ORS reviewed the Company's monthly fuel reports including
15 power plant performance data, major unit outages, and generation statistics.
16 Comparisons and analyses of actual to original estimates were performed for
17 both megawatt-hour sales and fuel costs. All data was reviewed and analysis
18 made with reference to the Company's existing Adjustment for Fuel Costs
19 Rider and the Fuel Clause statute.

20 **Q. WHAT ADDITIONAL STEPS WERE TAKEN IN ORS'S REVIEW OF**
21 **THE COMPANY'S PROPOSAL IN THIS PROCEEDING?**

22 **A.** ORS met with various representatives of the Company including fuel
23 procurement, plant operations, and resource planning personnel to discuss the

1 Company's procurement activities and policies, plant performance and
2 operations, and forecasting methodologies and practices.

3 Additionally on a daily basis, ORS keeps abreast of the coal and
4 natural gas markets through industry and governmental publications. During
5 the review period the coal industry continued to experience elevated prices.
6 Also during this period, natural gas prices were adversely affected by the
7 damage and devastation caused by Hurricanes Katrina and Rita.

8 **Q. DID ORS EXAMINE THE COMPANY'S PLANT OPERATIONS FOR**
9 **THE REVIEW PERIOD?**

10 **A.** Yes. ORS reviewed the Company's operation of its generating
11 facilities, including attention to the nuclear plant operations to determine if the
12 Company made reasonable efforts to minimize fuel costs. The review period
13 includes the historical time from April 2005 through March 2006 and the
14 projected time from April 2006 through June 2007. As shown by Exhibit
15 ARW-1, ORS reviewed the availability of the Company's major power plants.
16 Page one of Exhibit ARW-1 shows the monthly availability of the Company's
17 generating units. The capacity factors on page two of Exhibit ARW-1 indicate
18 the monthly utilization of each unit in the production of power.

19 **Q. PLEASE EXPLAIN THE SIGNIFICANCE OF PLANT**
20 **AVAILABILITY AND HOW IT IS USED IN YOUR EVALUATION AS**
21 **REPRESENTED ON YOUR EXHIBIT ARW-2.**

22 **A.** Exhibit ARW-2 shows the Company's major Fossil and Nuclear Units
23 summary of outages for the review period. Generating units with very low to

1 zero availability as well as those Units having months with less than 100%
2 availability led us to investigate the reasons for such occurrences. As shown
3 on Exhibit ARW-2, ORS obtained and summarized information from
4 Company outage reports explaining the various reasons for the level of
5 availability or outages. As an example, Exhibit ARW-1 shows Roxboro Unit 2
6 had 1.16% availability in April 2005, and Exhibit ARW-2 provides the
7 explanation for the plant not being available. For this example, the plant
8 continued off line from March 12, 2005 through most of April 2005, to
9 perform a major turbine overhaul and boiler inspection as well as tie-in for the
10 operation of the selective catalytic removal system.

11 **Q. WOULD YOU EXPLAIN HOW THE OTHER OUTAGES ARE**
12 **REPRESENTED ON EXHIBIT ARW-2?**

13 **A.** Yes. This Exhibit provides explanations for major fossil unit outages
14 in excess of 100 hours, as well as all nuclear plant outages during the review
15 period. Although not included in this Exhibit, fossil outages of less than 100
16 hours were also reviewed and found to be reasonable by ORS.

17 **Q. PLEASE ADDRESS THE OUTAGES AT THE COMPANY'S THREE**
18 **NUCLEAR STATIONS.**

19 **A.** Exhibit ARW-2, page 2 of 2 shows the duration of the outages at the
20 Company's three nuclear stations along with the cause and corrective action to
21 restore each to service. ORS found that the Company took appropriate
22 corrective action with respect to these outages, and there were no "NRC" fines
23 associated with these outages. The four units combined achieved an overall

93.75% capacity factor for the review period which included full or partial period refueling outages at three of the four units.

Q. WHAT WERE THE RESULTS OF YOUR ANALYSIS OF THE COMPANY'S PLANT OPERATIONS FOR THE PERIOD UNDER REVIEW?

A. ORS's review of the Company's operation of its generating facilities resulted in the conclusion that the Company made reasonable efforts to maximize unit availability and minimize fuel costs.

Q. DID ORS REVIEW THE GENERATION MIX UTILIZED BY THE COMPANY DURING THE REVIEW PERIOD?

A. Yes. Exhibit ARW-3 shows the generation mix for the review period by generation type. As shown in this Exhibit, the higher cost combustion turbine and combined-cycle units at Richmond County contributed higher percentage generation during the summer peak months and lower percentage generation during the non-summer period. The base load fossil and nuclear units supplied the majority of the year-round generation requirements.

Q. WHY DID YOU REFER TO THE COMBUSTION TURBINE AND COMBINED-CYCLE UNITS AS HAVING HIGHER COSTS?

A. Exhibit ARW-4 shows PEC's average fuel costs by major generating plant on the Company's system for the review period and the megawatt-hours produced by these plants. ORS's review revealed the lowest average fuel cost of 0.43 cents per kilowatt-hour at the Robinson 2 Nuclear Station, and the highest average period fuel cost of 8.59 and 13.20 cents at the combined-cycle

1 and combustion turbine Richmond County gas-fired plant respectively. The
2 Company utilizes economic dispatch which generally tends to dispatch or
3 bring on line the lowest cost units first.

4 **Q. HAS ORS REVIEWED THE ACCURACY OF THE COMPANY'S**
5 **FORECAST?**

6 **A.** Yes. As shown in Exhibit ARW-5, the Company's actual megawatt-
7 hour sales were 2.88% lower than forecasted during the review period. In
8 addition, Exhibit ARW-6 shows the monthly variance between projected and
9 actual fuel cost factors, and that the actual cumulative fuel cost was 3.55%
10 below forecasted fuel costs.

11 **Q. WHAT OTHER INFORMATION HAS ORS REVIEWED IN MAKING**
12 **ITS DETERMINATIONS IN THIS PROCEEDING?**

13 **A.** Exhibit ARW-7 shows the ending balances of over and under
14 collections of fuel costs beginning December 1979. The Company has
15 experienced both over and under recovery balances throughout the
16 approximately twenty-six year period.

17 **Q. WHAT OTHER SOURCES OF INFORMATION DOES ORS USE IN**
18 **DETERMINING THE REASONABLENESS OF A UTILITY'S**
19 **REQUEST FOR A FUEL COMPONENT?**

20 **A.** ORS routinely 1) reviews private and public industry publications as
21 well as those available on Department of Energy's, Energy Information
22 Administration (EIA) website; 2) conducts meetings with Company
23 personnel; 3) conducts meetings with representatives of industrial energy

1 consumers; 4) attends industry conferences; and 5) reviews information as
2 filed monthly by electric generating utilities on Form 423 with the Federal
3 Energy Regulatory Commission. An example of EIA data reviewed by ORS is
4 included on Exhibit ARW-8, which shows the upward trend, particularly for
5 Central Appalachia coal, of the average weekly coal commodity spot prices
6 over the three year period ending May 5, 2006. PEC generally obtains its coal
7 from the Central Appalachia region.

8 **Q. DOES ORS HAVE A RECOMMENDATION FOR THE FUEL**
9 **COMPONENT IN THIS PROCEEDING?**

10 **A.** Yes. ORS recommends the fuel component in this proceeding be set at
11 2.5 cents per kilowatt-hour for the period July 2006 through June 2007 per the
12 Settlement Agreement reached by the Parties in this proceeding.

13 **Q. PLEASE EXPLAIN THE BASIS FOR YOUR PROPOSED BASE FUEL**
14 **LEVEL COMPONENT.**

15 **A.** Subsequent to the Company's filing direct testimony on May 3, 2006
16 requesting an increase in the base fuel factor from 2.200 to 2.554 cents per
17 Kwh, the parties reached a Settlement Agreement that provides for a base rate
18 fuel factor of 2.500 cents per Kwh or a 0.3 cents per Kwh increase. This 2.500
19 cents per Kwh factor results from a compromise to the positions of all the
20 parties in this proceeding. The parties agree the revenues generated by the 0.3
21 cents per Kwh increase in the fuel factor shall be used to reduce the actual
22 PEC under-recovery of \$32,365,925 which existed on June 30, 2005. This
23 under-recovery level is approximately the same as the latest figures audited by

1 ORS for the month ending March 2006. The prior settlement reached in
2 Docket No. 2005-1-E basically provided for recovery of half of the
3 unrecovered balance (at June 30, 2005) beginning in July 2006 with annual
4 interest at 6% accumulating on the unrecovered balance. In addition to
5 decreasing the Company proposed fuel factor, another intent of the Settlement
6 is to reduce the amount of interest paid by the ratepayers on the under-
7 recovery. A result of the proposed treatment is to accelerate the recovery of
8 the under-recovered balance and eliminate the ratepayers' responsibility for
9 payment of interest during the period July 2006 through June 2007. Interest
10 will accrue on the unpaid balance beginning July 2006 and will be subject to
11 recovery by the Company after June 2007.

12 **Q. WERE THERE OTHER SIGNIFICANT COMPONENTS OF THE**
13 **SETTLEMENT AGREEMENT?**

14 **A.** Yes. As a result of the recent increase in fuel costs and the
15 corresponding upward pressure on electric rates, the parties have agreed to
16 investigate and study whether a seasonal fuel factor may be appropriate and in
17 the public interest. This seasonal differential can be seen on Exhibit ARW-6
18 where the fuel costs in cents per Kwh during the summer months are observed
19 to be higher than in the non-summer months. The parties request the
20 Commission keep this Docket No. 2006-1-E open in order for the parties to
21 work together on this issue in an attempt to develop a seasonal fuel factor if
22 the investigation reveals such to be in the public interest, and submit these
23 findings and recommendations to the Commission. In addition, the Company

1 will continue to provide monthly fuel recovery reports to the parties as well as
2 quarterly forecasts beginning October 1, 2006 of the Company's expected fuel
3 factor in the next annual proceeding.

4 **Q. IS THE SETTLEMENT AGREEMENT IN THE PUBLIC INTEREST?**

5 **A.** Yes, the Settlement Agreement is in the public interest. The
6 agreement balances the interests of the Company with the interests of the
7 consuming public and supports the interests of economic development. The
8 agreement is in the public interest because the fuel factor agreed to in the
9 settlement is a compromise between the factor sought by the Company and the
10 factor currently applied by the Company. The increase in the fuel factor of
11 0.3 cents per Kwh will be used to reduce the under-recovery and,
12 correspondingly, will reduce the amount of interest to be paid pursuant to the
13 Settlement Agreement approved in Docket No. 2005-1-E. The Company
14 originally sought a fuel factor of 2.554 cents per Kwh based on actual and
15 forecasted data, but subsequent to negotiations the parties chose a 2.500 cents
16 per Kwh factor and determined to use the 0.3 cents per Kwh increase to
17 reduce the under-recovery. The Settlement Agreement also supports the
18 interests of economic development because the agreement not only lowers the
19 proposed fuel factor, but also calls for the parties to examine in good faith
20 whether a seasonal fuel factor is in the public interest. The industrial
21 customers represented in this matter are interested in studying the potential
22 benefits of seasonal fuel factors.

1 For these reasons, the Settlement Agreement is just, fair, reasonable, in
2 the public interest, and in accordance with law and regulatory policy.

3 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

4 **A. Yes it does.**

**SOUTH CAROLINA
OFFICE OF REGULATORY STAFF**

**PROGRESS ENERGY CAROLINAS
ANNUAL REVIEW OF BASE RATES FOR FUEL COST
ACTUAL REVIEW PERIOD: APRIL 1, 2005 - MARCH 31, 2006**

DOCKET NO. 2006-1-E

A. RANDY WATTS TESTIMONY

EXHIBIT INDEX

<u>EXHIBIT NO.</u>	<u>EXHIBIT TITLE</u>
ARW-1	Power Plant Performance Data Report - Availability/Capacity Factors
ARW-2	Fossil/Nuclear Unit Outage Report
ARW-3	Generation Mix Report
ARW-4	Generation Statistics for Major Plants
ARW-5	SC Retail Comparison of Estimated to Actual Energy Sales
ARW-6	SC Retail Comparison of Estimated to Actual Fuel Cost
ARW-7	History of Cumulative Recovery Account Report
ARW-8	Average Weekly Coal Commodity Spot Prices
ARW-9	Fuel Cost Rider

All Exhibits Prepared by the SC Office of Regulatory Staff

South Carolina
Office of Regulatory Staff
Power Plant Performance Data Report
Availability Factors (Percentage) for
Progress Energy Carolinas, Inc.

PLANT	UNIT	MW RATING	APR 2005	MAY 2005	JUN 2005	JUL 2005	AUG 2005	SEP 2005	OCT 2005	NOV 2005	DEC 2005	JAN 2006	FEB 2006	MAR 2006
BRUNSWICK	1	938	68.21	97.35	99.47	74.56	80.72	99.43	98.85	99.38	97.08	99.24	99.47	9.35
BRUNSWICK	2	900	49.85	99.30	96.29	100.00	72.79	99.88	96.23	97.49	91.10	99.22	99.44	95.93
HARRIS	1	900	100.00	84.62	100.00	100.00	100.00	99.65	97.55	99.65	99.95	100.00	100.00	99.91
ROBINSON	2	710	100.00	99.34	100.00	100.00	100.00	53.05	16.44	100.00	99.72	100.00	100.00	100.00
NUCLEAR TOT		3448	79.52	95.15	98.94	93.64	88.38	88.00	77.27	99.13	96.96	99.62	99.73	76.30
MAYO	1	745	81.59	98.36	100.00	100.00	100.00	99.95	99.20	100.00	99.92	100.00	100.00	41.70
ROXBORO	2	670	1.16	63.54	88.51	88.81	80.42	88.80	70.59	99.99	99.81	100.00	100.00	99.93
ROXBORO	3	707	99.45	100.00	99.91	97.26	89.55	88.52	72.34	96.90	96.27	100.00	99.90	96.98
ROXBORO	4	700	66.40	95.40	99.69	92.50	93.98	94.28	92.60	93.15	98.65	99.88	99.94	97.15
FOSSIL TOTALS		2822	62.15	89.33	97.03	94.64	90.99	92.89	83.68	97.51	98.66	99.97	99.96	83.94
RICHMOND	7	185	100.00	100.00	100.00	100.00	92.56	100.00	53.02	56.67	100.00	100.00	100.00	100.00
RICHMOND	8	185	100.00	100.00	100.00	100.00	100.00	100.00	67.65	56.67	100.00	100.00	100.00	100.00
RICHMOND	ST	189	98.89	100.00	100.00	100.00	100.00	100.00	67.65	56.67	100.00	100.00	100.00	100.00
CC TOTALS		559	99.63	100.00	100.00	100.00	97.52	100.00	62.77	56.67	100.00	100.00	100.00	100.00

Note 1: CC designates Combined-Cycle units

**South Carolina
Office of Regulatory Staff
Power Plant Performance Data Report
Capacity Factors (Percentage) for
Progress Energy Carolinas, Inc.**

HISTORICAL DATA							REVIEW PERIOD (ACTUAL) DATA											
PLANT	UNIT	MW RATING	LIFE TIME	YEAR	YEAR	YEAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
				2003	2004	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	2006	2006
BRUNSWICK BRUNSWICK HARRIS ROBINSON	1	938	68.60	100.80	92.70	94.38	69.63	99.84	101.45	75.07	81.28	101.11	101.00	102.13	99.63	102.13	100.26	7.99
	2	900	66.09	98.90	98.20	86.02	50.32	104.91	100.64	104.43	74.50	104.73	100.55	102.36	95.54	101.92	102.17	97.93
	1	900	84.94	91.80	88.70	100.59	102.55	86.20	100.99	100.16	100.26	100.65	99.79	102.58	103.73	103.27	103.22	102.93
	2	710	74.64	103.50	92.20	92.77	105.50	103.60	102.77	101.42	101.07	53.47	17.17	106.18	106.37	106.58	106.41	106.18
NUCLEAR TOT		3448	72.60	98.51	92.99	93.49	80.57	98.38	101.39	94.71	88.54	92.12	83.30	103.14	101.02	103.29	102.80	76.47
MAYO ROXBORO ROXBORO ROXBORO	1	745	n/a	n/a	74.10	75.91	59.33	72.65	77.27	83.00	87.08	80.30	74.46	72.36	84.49	74.45	78.64	27.00
	2	670	n/a	n/a	67.00	64.35	0.00	45.49	77.66	82.33	76.38	82.22	55.42	79.71	86.63	80.21	86.86	93.18
	3	707	n/a	n/a	69.60	68.49	73.19	62.79	71.46	78.86	74.15	69.34	53.66	61.91	74.96	64.23	72.07	83.05
	4	700	n/a	n/a	68.10	67.87	44.18	64.75	75.60	76.30	81.93	74.77	62.21	57.73	73.90	61.12	66.88	70.44
FOSSIL TOT		2822	n/a	n/a	69.80	69.31	44.89	61.78	75.50	80.14	80.04	76.65	61.71	67.85	79.98	69.94	76.02	67.50
RICHMOND RICHMOND RICHMOND	7	185	n/a	n/a	24.20	26.92	25.39	0.00	20.10	55.35	50.63	34.67	8.55	0.67	34.70	0.00	3.03	31.90
	8	185	n/a	n/a	23.50	28.07	25.55	1.72	13.88	57.95	58.55	36.62	10.83	1.03	35.51	0.00	3.55	29.83
	ST4	189	n/a	n/a	28.00	31.79	29.48	0.89	18.92	66.26	64.67	41.73	11.25	0.65	39.75	0.00	3.66	35.41
CC TOTALS		559	n/a	n/a	25.25	28.95	26.83	0.87	17.64	59.90	58.00	37.70	10.22	0.78	36.68	0.00	3.42	32.40

The lifetime nuclear unit capacity factors are through December 2005

Note1: CC designates Combined-Cycle units

Note2: Brunswick 2 uprated to 937 MW effective January 1, 2006

**South Carolina
Office of Regulatory Staff
Fossil Unit Outage Report
(100 Hrs or Greater Duration) for
Progress Energy Carolinas, Inc.**

UNIT	DATE OFF	DATE ON	HOURS	TYPE	EXPLANATION OF OUTAGE
Mayo 1	03/01/06	03/11/06	237.42	Planned	Scheduled outage for boiler inspection and routine maintenance.
Mayo 1	03/16/06	03/24/06	182.28	Planned	Scheduled outage to perform main turbine #8 bearing repair, turbine inspection and maintenance.
Roxboro 2	03/12/05	04/29/05	1165.82	Planned	Scheduled outage to perform major turbine overhaul, boiler inspection, and installation of environmental modifications.
Roxboro 2	10/06/05	10/14/05	204.93	Planned	Scheduled outage to perform boiler inspection, and periodic, preventative, corrective maintenance.
Roxboro 3	10/25/05	11/01/05	163.23	Planned	Scheduled outage to perform boiler inspection, and periodic, preventative, corrective maintenance.
Roxboro 4	04/20/05	04/30/05	241.55	Planned	Scheduled outage to perform boiler inspection, and periodic, preventative, corrective maintenance.

**South Carolina
Office of Regulatory Staff
Nuclear Unit Outage Report (Greater Than 24 Hrs Duration)
for Progress Energy Carolinas, Inc.**

UNIT	DATE OFF	DATE ON	HOURS	TYPE	EXPLANATION OF OUTAGE
Brunswick 1	04/15/05	04/24/05	195.95	Planned	Scheduled outage to replace leaking fuel bundles.
Brunswick 1	07/13/05	07/20/05	170.95	Forced	Repaired failed generator no-load disconnect switch.
Brunswick 1	08/06/05	08/11/05	117.63	Forced	Potential electrical relay problem discovered which may cause diesel generators to trip when called into service. New relays were installed on each of the four generators.
Brunswick 1	03/03/06	03/31/06	674.03	Planned	Scheduled refueling outage.
Brunswick 2	03/04/05	04/06/05	785.88	Planned	Scheduled refueling outage. Also replaced main power transformers, condensate pumps, and reactor feed water pumps as remaining phase of power uprate project.
Brunswick 2	04/09/05	04/12/05	84.07	Forced	During restart after refueling outage, the unit experienced a condensate transient which caused an automatic reactor scram. System was inspected then reset. The reactor was restarted without a problem.
Brunswick 2	08/06/05	08/12/05	162.90	Forced	Potential electrical relay problem discovered which may cause diesel generators to trip when called into service. New relays were installed on each of the four generators.
Harris 1	05/01/05	05/03/05	50.03	Forced	Condensate pump tripped when motor shaft failed. Unit returned to service at half power while the repairs to the failed condensate pump were being performed.
Robinson 2	09/17/05	10/25/05	920.73	Planned	Scheduled refueling outage. Also performed reactor vessel head replacement and major transformer upgrades.

South Carolina
Office of Regulatory Staff
Generation Mix Report (April 2005 – March 2006) for
Progress Energy Carolinas, Inc.

MONTH	PERCENTAGE				
	FOSSIL	NUCLEAR	COMBUSTION TURBINE	COMBINED CYCLE	HYDRO
2005					
April	48.9	45.4	1.3	2.4	2.0
May	43.2	54.7	0.8	0.1	1.2
June	48.2	47.6	1.6	1.3	1.3
July	49.8	40.6	4.0	4.2	1.4
August	51.7	38.1	5.1	4.1	1.0
September	51.3	43.2	2.0	2.9	0.6
October	52.7	44.8	0.8	0.9	0.8
November	47.5	51.5	0.3	0.1	0.6
December	51.6	44.1	0.6	2.6	1.1
2006					
January	47.0	51.1	0.1	0.0	1.8
February	51.3	47.0	0.3	0.2	1.2
March	54.9	40.4	1.2	2.7	0.8

South Carolina
Office of Regulatory Staff
Generation Statistics for Major Plants
(April 2005 – March 2006) for
Progress Energy Carolinas, Inc.

PLANT	TYPE FUEL	AVERAGE FUEL COST (CENTS/KWH*)	GENERATION (MWH)
Harris	Nuclear	0.45	6,641,710
Robinson 2	Nuclear	0.43	5,781,175
Brunswick	Nuclear	0.45	11,995,330
Robinson 1	Coal	2.57	1,168,460
Weatherspoon	Coal	3.22	773,803
Asheville	Coal	3.18	2,325,305
Roxboro	Coal	2.79	14,620,794
Sutton	Coal	2.89	3,021,985
Cape Fear	Coal	2.40	1,937,516
Mayo	Coal	3.12	3,968,637
Lee	Coal	2.41	2,049,414
Richmond Cty	Gas CC/CT	8.59/13.20	1,871,480

(*) The average fuel costs for coal-fired plants include oil and/or gas cost for start-up and flame stabilization.

South Carolina
Office of Regulatory Staff
SC Retail Comparison of Estimated to Actual Energy Sales
for Progress Energy Carolinas, Inc.

	2005									2006			
	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	TOTAL
[1] ESTIMATED SALES [MWH]	551,670	562,084	646,361	696,149	723,034	687,466	586,034	531,172	603,741	680,941	623,635	581,080	7,473,367
[2] ACTUAL SALES [MWH]	595,849	525,063	599,052	657,012	731,976	704,401	588,097	527,743	573,413	608,166	594,662	558,556	7,263,990
[3] AMOUNT DIFFERENCE [1]-[2]	-44,179	37,021	47,309	39,137	-8,942	-16,935	-2,063	3,429	30,328	72,775	28,973	22,524	209,377
[4] PERCENT DIFFERENCE [3]/[2]	-7.41	7.05	7.90	5.96	-1.22	-2.40	-0.35	0.65	5.29	11.97	4.87	4.03	<u><u>2.88%</u></u>

**South Carolina
Office of Regulatory Staff
SC Retail Comparison of Estimated to Actual Fuel Cost
for Progress Energy Carolinas, Inc.**

	2005 APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2006 JAN	FEB	MAR	PERIOD AVERAGE
[1] ORIGINAL PROJECTION (¢/kWh)	1.894	2.075	2.355	2.782	2.501	2.129	2.237	2.023	2.166	2.005	2.096	2.146	2.215
[2] ACTUAL EXPERIENCE (¢/kWh)	1.785	1.742	2.207	2.810	2.876	2.390	1.989	1.756	2.176	1.644	1.721	2.213	2.139
[3] AMOUNT IN BASE (¢/kWh)	1.471	1.471	1.471	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	
[4] VARIANCE FROM ACTUAL [1-2]/[2]	6.11	19.12	6.71	-1.00	-13.04	-10.92	12.47	15.21	-0.46	21.96	21.79	-3.03	<u>3.55%</u>

**South Carolina
Office of Regulatory Staff
History of Cumulative Recovery Account Report
for Progress Energy Carolinas, Inc.**

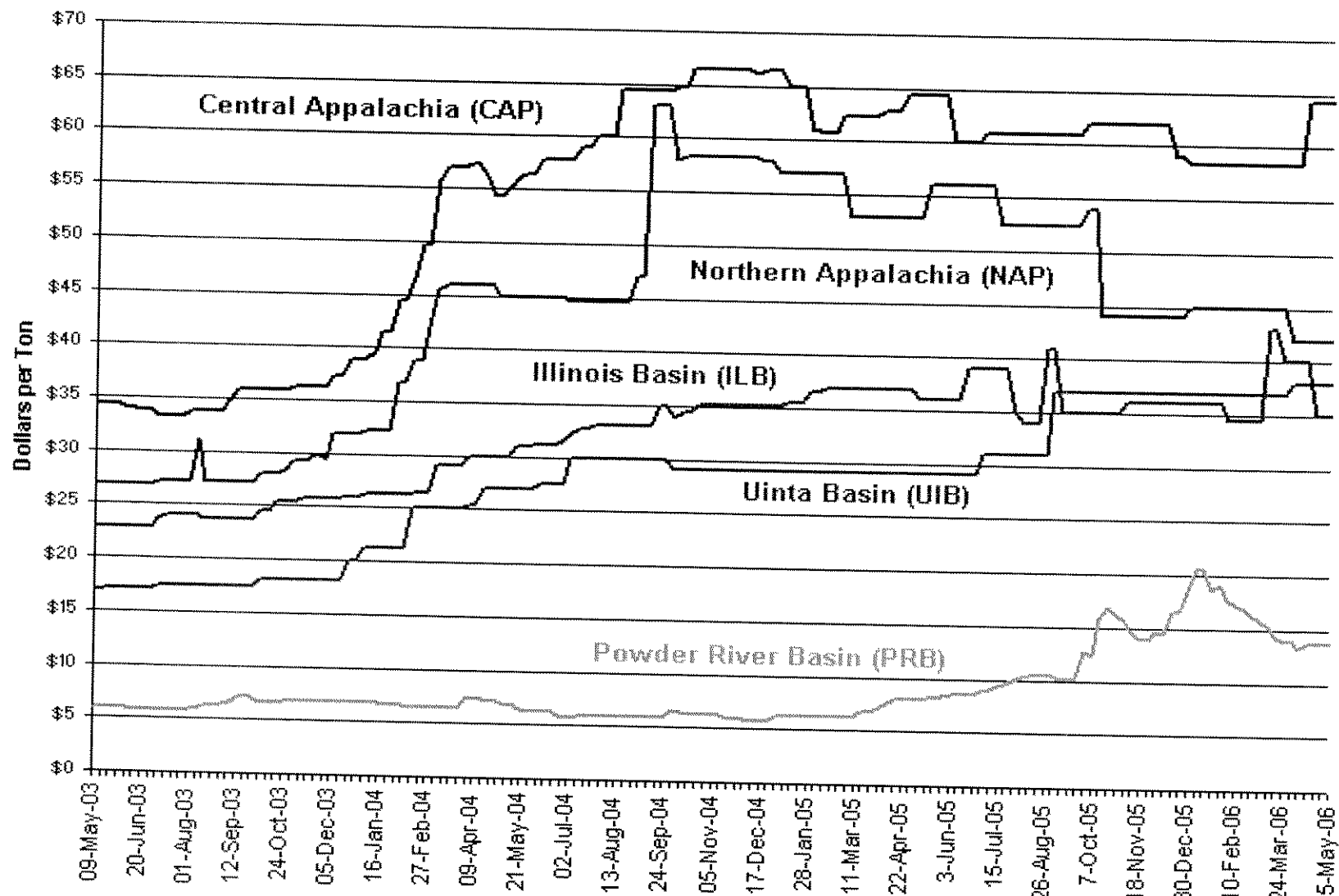
EXHIBIT ARW-7

<u>PERIOD ENDING</u>	<u>OVER (UNDER) \$</u>
March 1979 – Automatic Fuel Adjustment in Effect	
December 1979	1,104,730
September 1980	(12,000,131)
March 1981	(4,060,364)
August 1981	(12,113,832)
March 1982	(935,412)
September 1982	(6,881,796)
March 1983	(2,259,114)
September 1983	(3,264,694)
March 1984	109,270
September 1984	2,172,859
March 1985	(2,317,008)
September 1985	745,913
March 1986	1,972,280
September 1986	(696,805)
March 1987	2,408,354
September 1987	3,310,059
March 1988	(3,964,888)
September 1988	(5,737,541)
March 1989	(8,125,496)
September 1989	(5,875,641)
March 1990	(9,311,149)
September 1990	(658,614)
March 1991	1,403,023
September 1991	4,661,988
March 1992	5,201,112
September 1992	(6,712,920)
March 1993	(9,563,180)
September 1993	0*
March 1994	(1,010,684)
September 1994	1,975,939
March 1995	7,408,161
September 1995	2,011,489
December 1996	186,139
December 1997	(6,212,396)
December 1998	(14,334,022)
December 1999	(17,967,157)**
December 2000	(18,627,471)
December 2001	(9,906,921)
December 2002	(7,393,266)
December 2003	(6,038,891)
March 2005	(27,537,237)
March 2006	(32,368,520)

*Eliminated \$14,011,263 per Commission Order No. 93-865

**Reduced by \$6,500,000 per Commission Order No. 1999-324

Average Weekly Coal Commodity Spot Prices **Business Week Ended May 5, 2006**



Key to Coal Commodities by Region¹

Central Appalachia: Big Sandy/Kanawha 12,500 Btu, 1.2 lb SO₂/mmBtu
Northern Appalachia: Pittsburgh Seam 13,000 Btu, <3.0 lb SO₂/mmBtu
Illinois Basin: 11,800 Btu, 5.0 lb SO₂/mmBtu

Powder River Basin: 8,800 Btu, 0.8 lb SO₂/mmBtu
Uinta Basin in Colo.: 11,700 Btu, 0.8 lb SO₂/mmBtu

APPLICABILITY

This adjustment is applicable to and is a part of the Utility's South Carolina retail electric rate schedules.

The Public Service Commission has determined that the costs of fuel in an amount to the nearest one-thousandth of a cent, as determined by the following formula, will be included in the base rates to the extent determined reasonable and proper by the Commission:

$$F = \frac{E}{S} + \frac{G}{S_1}$$

Where:

F = Fuel cost per kilowatt-hour included in base rate, rounded to the nearest one-thousandth of a cent.

E = Total projected system fuel costs:

- (A) Fuel consumed in the Utility's own plants and the Utility's share of fuel consumed in jointly owned or leased plants. The cost of fossil fuel shall include no items other than those listed in Account 151 of the Commission's Uniform System of Accounts for Public Utilities and Licensees and the cost of SO₂ emission allowances recorded in FERC Account 509 (allowance cost). The cost of nuclear fuel shall be that as shown in Account 518 excluding rental payments on leased nuclear fuel and except that, if Account 518 also contains any expense for fossil fuel which has already been included in the cost of fossil fuel, it shall be deducted from this account.

Plus

- (B) Fuel costs related to purchased power (and applicable SO₂ emission allowances) such as those incurred in unit power and limited term power purchases where the fossil fuel costs and applicable SO₂ emission allowances associated with energy purchased are identifiable and are identified in the billing statement. Also the cost of 'firm generation capacity purchases' which are defined as purchases made to cure a capacity deficiency or to maintain adequate reserve levels. "Costs of firm generation capacity purchases" include the total delivered costs of firm generation capacity purchased and excludes generation capacity reservation charges, generation capacity option charges and any other generation capacity charges.

Plus

- (C) Fuel costs related to purchased power (including transmission charges and applicable SO₂ emission allowances), such as short term, economy and other such purchases, where the energy is purchased on an economic dispatch basis, including the total delivered cost of economy purchases of electric power defined as purchases made to displace higher cost generation at a cost which is less than the purchasing Utility's avoided variable costs for the generation of an equivalent quantity of electric power.

Energy receipts that do not involve money payments such as Diversity energy and payback of storage energy are not defined as purchased or interchange power relative to this fuel calculation.

Minus

- (D) The cost of fuel and applicable allowance cost recovered through intersystem sales including the fuel costs and applicable allowance cost related to economy energy sales and other energy sold on an economic dispatch basis.

Energy deliveries that do not involve billing transactions such as Diversity energy and payback of storage are not defined as sales relative to this fuel calculation.

S = Projected system kilowatt-hour sales excluding any intersystem sales.

G = Cumulative difference between jurisdictional fuel revenues billed and fuel expenses at the end of the month preceding the projected period utilized in E and S.

S₁ = Projected jurisdictional kilowatt-hour sales for the period covered by the fuel costs included in E.

The appropriate revenue-related tax factor is to be included in these calculations.

The fuel cost (F) as determined by Public Service Commission of South Carolina is ____ cents per kilowatt-hour, which shall remain in effect until superseded by a subsequent Commission order: Provided that the terms of S.C. Code Ann. Section 58-27-865 shall govern this calculation, and in case of any conflict this statute shall control.

Supersedes Rider No. 39U Effective for bills rendered on and after July 1, 2005